IN THE SPECIFICATION:

Please amend the paragraph starting at page 1, line 10 and ending at line 20, as follows.

--Here, the electrophotographic image forming apparatus (hereinafter referred to as the "image forming apparatus") ~~means~~ is an apparatus that forms an image on a recording medium using an electrophotographic image forming process. Examples of the image forming apparatus are an electrophotographic copying machine, an electrophotographic printer (for instance, an LED printer, a laser beam printer, and the like), an electrophotographic facsimile apparatus, and an electrophotographic word processor.--

A1

Please amend the paragraph starting at page 4, line 23 and ending at page 5, line 6, as follows.

--An object of the ~~present~~ invention is to provide a process cartridge capable of maintaining a space between a developing roller and an electrophotographic photosensitive drum always constant with accuracy, an electrophotographic image forming apparatus to which the process cartridge is detachably mountable, and a developing blade for use in the process cartridge ~~and a developing blade that achieve space saving, reduce the number of parts, and obtain fine images without image defects by maintaining a pressurizing force of a developing roller against an electrophotographic photosensitive drum at an appropriate value and thereby maintaining a constant space between the electrophotographic photosensitive drum and the developing roller at all times~~.--

A2

Please amend the paragraph starting at page 5, line 7 and ending at line 10, as follows.

--~~Another~~ It is another object of the ~~present~~ invention ~~is~~ to provide a process cartridge ~~and a developing blade with which cost reduction and space saving are achieved by reducing the number of parts~~ capable of surely biasing a developing roller in a direction in which the developing roller abuts against an electrophotographic photosensitive drum, an electrophotographic image forming apparatus to which the process cartridge is detachably mountable, and a developing blade for use in the process cartridge.--

A3

Please amend the paragraph starting at page 5, line 11 and ending at line 18, as follows.

--~~Still~~ It is still another object of the ~~present~~ invention ~~is~~ to provide a process cartridge ~~and a developing blade with which there is obtained a simplified construction of a voltage applying means, a voltage from the voltage applying means being added to the developing blade in order to obtain a potential of the developing blade that is the same as a potential of a developing roller~~ reduced in cost by attaching one end of a biasing member for biasing a developing roller in a direction in which the developing roller abuts against an electrophotographic photosensitive drum to a supporting portion of a developing blade, an electrophotographic image forming apparatus to which the process cartridge is detachably mountable, and the developing blade for use in the process cartridge.--

A4

Please amend the paragraph starting at page 5, line 19 and ending at page 7, line 4, as follows.

--~~Another~~ It is still further another object of the ~~present~~ invention ~~is~~ to provide a process cartridge capable of improving detection of a remaining amount of developer, an electrophotographic image forming apparatus to which the process cartridge is detachably mountable, and a developing blade for use in the process cartridge ~~that is detachably mountable to a main body of an electrophotographic image forming apparatus, the process cartridge comprising:~~

~~an electrophotographic photosensitive drum;~~

~~a developing roller for developing an electrostatic latent image formed on the electrophotographic photosensitive drum;~~

~~a developing contact portion which, when the process cartridge is mounted to the main body, contacts a main-body-side developing contact portion of the apparatus main body for applying a voltage to the developing roller;~~

~~a developing blade for regulating an amount of developer on a peripheral surface of the developing roller;~~

~~a supporting member for supporting the developing blade;~~

~~a developing frame that rotatably supports the developing roller, and also supports the supporting member;~~

~~a drum frame that rotatably supports the electrophotographic photosensitive drum and is connected to the developing frame, in which the connection between the developing frame and the drum frame is established so that the developing frame and the drum frame are capable of rocking with each other; and~~

~~a biasing member that is attached to at least one end side of the supporting member in a lengthwise direction of the developing roller, biases the developing roller toward the electrophotographic photosensitive drum, and contacts the developing contact portion, in which the biasing member applies a voltage received from the apparatus main body by the developing contact portion to the supporting member, thereby making the developing roller and the supporting member have the same potential.--~~

Please amend the paragraph starting at page 7, line 5 and ending at page 9, line 2, as follows.

--~~Further,~~ It is still further another object of the ~~present~~ invention ~~is~~ to provide a process cartridge ~~comprising~~:

~~an electrophotographic photosensitive drum;~~

~~a developing roller that develops an electrostatic latent image formed on the electrophotographic photosensitive drum;~~

~~a developing contact portion which, when the process cartridge is mounted to the apparatus main body, contacts a main-body-side developing contact portion of the apparatus main body and applies a voltage to the developing roller;~~

~~a developing blade for regulating developer on a surface of the developing roller;~~

~~a supporting member to which the developing blade is fixed;~~

~~a developing frame that rotatably supports the developing roller, and also supports the supporting member;~~

~~a developer containing frame that contains developer to be supplied to the developing roller;~~

~~a drum frame that rotatably supports the electrophotographic photosensitive drum and is connected to the developing frame, in which the connection between the developing frame and the drum frame is established so that the developing frame and the drum frame are capable of rocking with each other;~~

A6 Cont

~~a first end cover that is positioned on one end side in a lengthwise direction of the electrophotographic photosensitive drum, performs positioning of at least the drum frame and the developer containing frame, and includes the developing contact portion;~~

~~a second end cover that is positioned on the other end side in the lengthwise direction of the electrophotographic photosensitive drum and performs positioning of at least the drum frame and the developer containing frame; and~~

~~an spring member that is attached to at least one end side of the supporting member in a lengthwise direction of the developing roller, biases the developing roller toward the electrophotographic photosensitive drum, and contacts the developing contact portion, in which each of the spring member and the supporting member is made of a conductive material and the spring member applies a voltage received from the main body by the developing contact portion to the supporting member, thereby making the developing roller and the supporting member have the same potential~~ capable of applying voltage to a supporting portion of a developing blade by using a biasing member for biasing a developing roller in a direction in which the developing roller abuts against an electrophotographic photosensitive drum, an

electrophotographic image forming apparatus to which the process cartridge is detachably mountable, and the developing blade for use in the process cartridge.--

Please amend the paragraph starting at page 9, line 3 and ending at page 10, line 13, as follows.

--~~Further,~~ Also, it is another object of the ~~present~~ invention ~~is~~ to provide ~~an image forming apparatus, comprising:~~

~~(a) a main-body-side developing contact portion; and~~

~~(b) a mounting means for detachably mounting a process cartridge, the process cartridge including: an electrophotographic photosensitive drum; a developing roller for developing an electrostatic latent image formed on the electrophotographic photosensitive drum; a developing contact portion which, when the process cartridge is mounted to the apparatus main body, contacts the main-body-side developing contact portion for applying a voltage to the developing roller; a developing blade for regulating an amount of developer on a peripheral surface of the developing roller; a supporting member for supporting the developing blade; a developing frame that rotatably supports the developing roller, and also supports the supporting member; a drum frame that rotatably supports the electrophotographic photosensitive drum and is connected to the developing frame, wherein the connection between the developing frame and the drum frame is established so that the developing frame and the drum frame are capable of rocking with each other; and a biasing member that is attached to at least one end side of the supporting member in a lengthwise direction of the developing roller, biases the developing roller toward the electrophotographic photosensitive drum, and contacts the developing contact~~

~~portion, in which the biasing member applies a voltage received from the main body by the developing contact portion to the supporting member, thereby making the developing roller and the supporting member have the same potential~~ a process cartridge detachably mountable to a main body of an electrophotographic image forming apparatus, the process cartridge comprising: an electrophotographic photosensitive drum; a developing roller for developing an electrostatic latent image formed on the electrophotographic photosensitive drum; a developing blade for regulating an amount of developer on a peripheral surface of the developing roller, the developing blade having a regulating portion for regulating the amount of developer on the peripheral surface of the developing roller and a supporting portion for supporting the regulating portion; a developing frame that rotatably supports the developing roller, the supporting portion of the developing blade being attached to the developing frame; a drum frame that rotatably supports the electrophotographic photosensitive drum and that is connected to the developing frame, wherein the drum frame and the developing frame are connected rockably to each other; and a biasing member for biasing the developing roller toward the electrophotographic photosensitive drum, wherein one end of the biasing member is attached to at least one end of the supporting portion in a longitudinal direction of the developing roller.--

Please amend the paragraph starting at page 10, line 14 and ending at line 20, as follows.

--Also, it is still another object of the ~~present~~ invention ~~is~~ to provide ~~a developing blade that is fixed to a supporting member and is attached to a developing frame, in which at least one end of the supporting member in the lengthwise direction of a developing roller is~~

~~provided with an attachment portion to which a biasing member is attached~~ an electrophotographic image forming apparatus to which a process cartridge is detachably mountable for forming an image on a recording medium, the electrophotographic image forming apparatus comprising: (i) mounting means for detachably mounting the process cartridge, the process cartridge comprising: an electrophotographic photosensitive drum; a developing roller for developing an electrostatic latent image formed on the electrophotographic photosensitive drum; a developing blade for regulating the amount of developer on a peripheral surface of the developing roller, the developing blade having a regulating portion for regulating an amount of developer on the peripheral surface of the developing roller and a supporting portion for supporting the regulating portion; a developing frame that rotatably supports the developing roller, the supporting portion of the developing blade being attached to the developing frame; a drum frame that rotatably supports the electrophotographic photosensitive drum and that is connected to the developing frame, wherein the drum frame and the developing frame are connected rockably to each other; and a biasing member for biasing the developing roller toward the electrophotographic photosensitive drum, wherein one end of the biasing member is attached to at least one end of the supporting portion in a longitudinal direction of the developer roller; and (ii) transporting means for transporting the recording medium.

Also, it is still another object of the invention to provide a developing blade for use in a process cartridge, the process cartridge comprising: an electrophotographic photosensitive drum; a developing roller for developing an electrostatic latent image formed on the electrophotographic photosensitive drum; a developing frame that rotatably supports the developing roller; a drum frame that rotatably supports the electrophotographic photosensitive

drum and that is connected to the developing frame, wherein the drum frame and the developing frame are connected rockably to each other; and a biasing member for biasing the developing roller toward the electrophotographic photosensitive drum, the developing blade comprising: a regulating portion for regulating an amount of developer on a peripheral surface of the developing roller; and a supporting portion for supporting the regulating portion, the supporting portion being to be attached to the developing frame and having an attaching portion to which one end of the biasing member is attached.--

A8 Cont

Please amend the paragraph starting at page 11, line 8 and ending at line 9, as follows.

A9

--FIG. 4 is a ~~back~~ side view of the process cartridge;--

Please amend the paragraph starting at page 11, line 23 and ending at line 25, as follows.

A10

--FIG. 9 is a substantially ~~front~~ side view of the process cartridge from which a side cover has been detached;--

Please amend the paragraph starting at page 13, line 21 and ending at line 22, as follows.

A11

--FIG. 27 is a schematic system diagram of a driving system of the process cartridge;--

Please amend the paragraph starting at page 13, line 23 and ending at line 24, as follows.

A12

--FIG. 28 is a ~~front~~ schematic side view showing a cooling means of the process cartridge;--

Please amend the paragraph starting at page 13, line 25 and ending at line 26, as follows.

A13

--FIG. 29 is another ~~front~~ schematic side view showing the cooling means of the process cartridge;--

Please amend the paragraph starting at page 14, line 8 and ending at line 10, as follows.

A14

--FIG. 34 is a partial ~~front~~ side view of the process cartridge from which a side cover has been detached;--

Please amend the paragraph starting at page 15, line 9 and ending at line 11, as follows.

A15

--FIGS. 43A, 43B, and 43C are ~~each a~~ plan ~~view~~ views showing how the process cartridge is inserted into the main body of the image forming apparatus;--

Please amend the paragraph starting at page 15, line 12 and ending at line 16, as follows.

--FIGS. 44A, 44B, and 44C are ~~each a~~ side cross-sectional ~~view~~ views showing relations among an up-and-down lever and a guide portion of the process cartridge and a guide rail of the main body of the image forming apparatus;--

Please amend the paragraph starting at page 15, line 17 and ending at line 20, as follows.

--FIGS. 45A, 45B, and 45C are ~~each a~~ plan ~~view~~ views showing how the process cartridge is inserted into the main body of the image forming apparatus according to another embodiment;--

Please amend the paragraph starting at page 16, line 2 and ending at line 12, as follows.

--Embodiments of the present invention will be described with reference to FIGS. 1 to 9. In this embodiment, the lengthwise direction ~~means~~ is a direction that is perpendicular to a direction, in which a recording medium is transported, and is parallel to ~~a~~ the plane of the recording medium. Also, the upper surface and the lower surface of a process cartridge respectively refer to the upper surface and the lower surface thereof under a condition where the process cartridge is mounted to the main body of an image forming apparatus.--

Please amend the paragraph starting at page 17, line 23 and ending at page 18, line 19, as follows.

--This process cartridge 15 is mounted to the image forming apparatus P shown in FIG. 1 and is used to form images. During the image formation, a sheet S functioning as a recording medium is transported by transport rollers 7 from sheet cassettes 6 mounted in a lower portion of the apparatus, and a latent ~~mage~~ image is formed by selectively exposing the photosensitive drum 11 from an exposing device 8 in synchronism with the transportation of this sheet. Following this, toner contained in a toner container or developer frame 16 is given a frictional electrification charge by the developing blade 26, a thin layer of the toner is ~~bore~~ borne on the surface of the developing roller 18, and a developing bias is applied to the developing roller 18, thereby supplying the toner in accordance with the latent image. This toner image is transferred onto the sheet S, which functions as a transported recording medium, by the application of a bias voltage to a transfer roller 9. This sheet S is transported to a fixing device 10 to fix the image, and is delivered by sheet delivery rollers 1 to a delivery portion 2 located in the upper part of the apparatus.--

A19

Please amend the paragraph starting at page 18, line 26 and ending at page 19, line 22, as follows.

--FIGS. 3 to 9, 47, and 48 each show the constructions of frames of the process cartridge. FIG. 7 shows a state before these frames are assembled and FIGS. 3 to 6A each show a state after these frames are assembled. As cartridge frame, the process cartridge 15 includes three frames: a cleaning frame 13 integrally supporting the photosensitive drum 11, the charging member 12, and the cleaning member 14; a developing frame (also called the "developing frame") 17 integrally supporting the developing roller 18 and the developing blade (not shown in

A20

FIG. 7, see reference numeral 26 in FIG. 2); and a developer frame 16 ~~constructing~~ comprising a developer container 16h that contains developer (hereinafter referred to as the "toner"). Note that the developer frame 16 is provided with a developing under cover 45. Further, to combine these three frames, both end surfaces of the cleaning frame 13 and the developer frame 16 are fixed using end covers 19 and 20 and the developing frame 17 is supported by the cleaning frame 13. Note that the frame supporting the photosensitive drum 11 is also called the "drum frame".--

Please amend the paragraph starting at page 19, line 23 and ending at page 20, line 8, as follows.

--As described above, the process cartridge 15 includes the developing under cover 45. Here, when the process cartridge 15 is ~~mounded~~ mounted to the apparatus main body 27, the developing under cover 45 is disposed at a position below the developing roller 18 and the developing blade 26 that are developing members. Also, this developing under cover 45 functions as a part of the external wall of the process cartridge 15. Further, one lengthwise end of the developing under cover 45 is connected to the rear end cover 19, and also, the other lengthwise end is connected to the front end cover 20.--

Please amend the paragraph starting at page 20, line 24 and ending at page 21, line 17, as follows.

--The rear end cover 19 includes a hole portion 19a. Also, from the hole portion 19a, there protrudes a shaft 22a1 that extends outward concentrically with an axis functioning as a bearing of the photosensitive drum 11. Here, the shaft 22a1 is a part of a bearing member 22a,

through which one end of the photosensitive drum 11 is supported by the cleaning frame 13. Also, when the process cartridge 15 is mounted to the apparatus main body 27, the shaft 22a1 is positioned in the apparatus main body 27. That is, the process cartridge 15 is inserted to the back of the apparatus main body 27 and the position thereof is lowered, whereby the ~~axis~~ shaft (positioning member) 22a1 that is integrated with the drum axis is fitted in a positioning concave portion (to be described later) of the apparatus main body 27. Also, during the mounting and detachment of the process cartridge 15 to and from the apparatus main body 27, second and third guide portions ~~19g and~~ 20g and 19g, respectively, are supported by the apparatus main body 27.--

Please amend the paragraph starting at page 21, line 18 and ending at page 22, line 6, as follows.

--As shown in FIGS. 5 and 47, there is provided a first handle 30 on the upper surface of the developer frame 16. Here, the upper surface refers to the surface that faces upward when the aforementioned process cartridge 15 is mounted to the apparatus main body 27. Also, to transport the process cartridge 15, an operator grasps the first handle 30. This first handle 30 is contained in a concave portion 16e on the upper surface of the developer flame 16 and a base portion 30a of the first handle 30 is pivotally attached to the developer frame 16 with pins (not shown) that are parallel in the lengthwise direction. When an operator uses the first handle 30, he/she rotates the first handle 30 about the pins to make it stand ~~it~~.--

Please amend the paragraph starting at page 22, line 7 and ending at line 13, as follows.

--As shown in FIGS. 2 and 5, the cleaning frame 13 includes an exposure opening 13g. Here, when the process cartridge 15 is mounted to the apparatus main body 27, information light to ~~be irradiated onto~~ irradiate the photosensitive drum 11 by the exposure device 8 of the apparatus main body 27 passes through the exposure opening 13g.--

A24

Please amend the paragraph starting at page 22, line 14 and ending at page 23, line 9, as follows.

--As shown in FIG. 4 and 7, the front end cover 20 includes a first hole portion 20a and a second hole portion 20e. Also, the first hole portion 20a is provided with a first coupling 105a functioning as a first driving force receiving portion that receives a driving force to rotate the photosensitive drum 11 from the apparatus main body 27 when the process cartridge 15 is mounted to the apparatus main body 27. This first coupling 105a is integrally formed with a flange 11a shown in FIG. 7. This flange 11a is fixed to one end of the photosensitive drum 11. Also, the second hole portion 20e is provided with a second coupling or input coupling 106a functioning as a second driving force receiving portion that receives a driving force to rotate agitating members 113, 114, and 123 (see FIG. 2) that are toner supplying members for supplying toner contained in the developer container 16h of the developer frame 16 from the apparatus main body 27 when the process cartridge 15 is mounted to the apparatus main body 27. The developing frame 17 will be described in detail later.--

A25

Please amend the paragraph starting at page 23, line 10 and ending at line 22, as follows.

--The end covers 19 and 20 each have ~~an enough~~ a sufficient size to cover the main cross section (the vertical surface perpendicular to the lengthwise direction of the photosensitive drum) of the process cartridge 15. Also, these end covers are arranged at both lengthwise ends of the process cartridge 15. Further, these end covers each have ~~an enough~~ a sufficient size to cover both of the cleaning frame 13 and the developer frame 16 and are each fixed to both of the cleaning frame 13 and the developer frame 16, thereby integrally combining the cleaning frame 13 and the developer frame 16 with each other.--

Please amend the paragraph starting at page 24, line 26 and ending at page 25, line 24, as follows.

--Further, the developer frame 16 is provided with cylindrical positioning portions 16a and 16b that protrude in the lengthwise direction from a lengthwise end surface 16d of the developer frame 16. Also, these positioning portions 16a and 16b are fitted in positioning portions 19c and 19d that are holes established in the rear end cover 19. With this construction, the developer frame 16 is positioned with respect to the rear end cover 19. Then, the developer frame 16 is fixed to the rear end cover 19. In a similar manner, the front end cover 20 that is the other end cover is positioned and fixed to the developer frame 16 and the cleaning frame 13. The developing frame 17 is positioned ~~with~~ by a method to be described later. That is, the perimeter of a bearing member 22b press-fitted and fixed to the cleaning frame 13 is fitted in the hole portion 20a of the front end cover 20 and the bearing member 22b is allowed to partially

protrude outward from the front end cover 20. Also, a bearing member 22 (22a, 22b) contributes to the positioning of the process cartridge 15 in the main body 27 of the image forming apparatus. That is, the bearing member 22 is a positioning portion of the process cartridge 15 and is a circular member.--

A27 cont

Please amend the paragraph starting at page 29, line 8 and ending at line 19, as follows.

--This embodiment relates to a construction in which a space between the developing device D and the developer frame 16 is sealed up. With this sealing construction, a flexible seal 21 having a folded shape is laminated as a sealing member. The flexible seal 21 is attached to the developer frame 16 through a place-shaped member 33 functioning as a connecting member. In this case, the flexible seal 21 has a thickness of 1 mm or less, although the thickness may be set to 1mm or more by selecting a material that does not ~~loses~~ lose ~~the~~ its flexibility ~~of the~~ in a folded shape.--

A28

Please amend the paragraph starting at page 31, line 20 and ending at line 27, as follows.

--In the embodiment, as shown in FIG. 7, there is obtained a construction in which a portion 33a is welded and an area, in which a toner sealing member 25 presses the developer seal 24, and which is not welded or bonded. Here, the portion 33a includes areas on both lengthwise sides and at one widthwise end of one surface of the plate-shaped member 33.--

A29

Please amend the paragraph starting at page 33, line 24 and ending at page 34, line 13, as follows.

--As shown in FIG. 12, orifice holes 31a used for sheet member suction are established in an attachment and holding member 31. Also, these orifice holes 31a ~~are~~ ~~communicated~~ communicate with an unillustrated vacuum pump apparatus. The layer 21a of this flexible seal 21 is vacuum-suctioned by the plurality of orifice holes 31a and is held by the attachment and holding member 31, as shown in FIG. 13. Note that the surface of the attachment and holding member may be charged. In this case, the sheet member sticks to the attachment and holding member due to static electricity. After the suction, the released paper 21b that is the second layer of the flexible seal 21 is peeled off and only the layer 21a (flexible seal 21) remains on the attachment and holding member 31, as shown in FIG 14.--

A30

Please amend the paragraph starting at page 36, line 13 and ending at line 17, as follows.

--Further, as another embodiment, there may be instead used an ultrasonic welding method with which heat is instantaneously generated, a gluing agent that is not accompanied ~~with~~ by heat generation, an adhesive tape, and the like.--

A31

Please amend the paragraph starting at page 36, line 18 and ending at line 24, as follows.

--The assembling is performed in this manner, so that even if the flexible seal is very thin and therefore it is difficult to stick the flexible seal without creases, the shape of the flexible

A32

A32 Cont

seal is stabilized by removing the ~~peering~~ peeling sheet after suction. Therefore, it becomes possible to perform welding at desired positions.--

Please amend the paragraph starting at page 39, line 13 and ending at line 23, as follows.

--Accordingly, in the cartridge 15 assembled in the manner shown in FIG. 17, the sheet member 21i is pinched by the opposing surface 17g of the developing frame 17 and the opposing surface 16f of the developer frame 16. The reaction force generated by the pinching of this sheet member 21i acts as a pressurizing force with which a spacer roller 18b (Fig. 7) of the developing roller 18 is pressed against the photosensitive drum 11. Therefore, it is preferable that the spring force of the sheet member 21i is reduced as small as possible.--

A33

Please amend the paragraph starting at page 40, line 3 and ending at line 15, as follows.

--After the developer supplying opening portion 16c of the developer frame 16 is sealed, the developer seal 24 is bent so as to overlap the sealed part, thereby obtaining a part of the developer seal 24 that ~~protrude~~ protrudes to the outside on a side opposite to the bending position, as shown in FIG 7. Before the developer seal 24 is attached, the agitating member 113, 114, and 123 are mounted. After the developer seal is attached, toner is loaded into the developer frame 16 through a toner loading opening 16g. After the toner loading, a toner cap 37 is press-fitted in the toner loading opening 16g and is fixed therein.--

A34

Please amend the paragraph starting at page 43, line 11 and ending at line 15, as follows.

--A tension coil spring 36 is provided ~~with~~ to produce tension between the developing frame 17 and the cleaning frame (also called drum frame) 13. In this example, this construction is further developed.--

A35

Please amend the paragraph starting at page 47, line 15 and ending at page 49, line 3, as follows.

--Also, sleeve flanges 18a that are stepped cylindrical members made of a metallic material, such as aluminum or a stainless steel, are press-fitted in both end portions of the developing roller 18 (only one end portion is illustrated). Each sleeve flange 18a is coaxial with the developing roller 18 and is provided with a first cylindrical portion 18d having a large outside diameter and a second cylindrical portion 18c having a diameter that is smaller than that of the first cylindrical portion 18d. This first cylindrical portion 18d is provided with the ring-shaped distance regulating member (called the "spacer roller") 18b that regulates the opposing distance (hereinafter, the "SD gap") between the developing roller 18 and the photosensitive drum 11. This spacer roller 18b is made of an insulating material, such as polyacetal. The outside diameter of this spacer roller 18b is larger than the diameter of the developing roller 18, with the difference between them being equal to ~~twofold of~~ twice the SD gap. Also, the second cylindrical portion 18c is provided with a developing bearing 63 for rotatably supporting the developing roller 18 and positioning on the developing frame 17 (FIG. 20 is an especially magnified perspective view taken from the opposite side). Also, a

A36

two-surface width portion 18e is formed at the tip of the second cylindrical portion 18c and a developing roller gear 62 made of a synthetic resin is unrotatably fitted around this cylindrical portion 18c. This developing roller gear 62 receives a driving force from a helical drum gear (not shown) provided in an end portion of the photosensitive drum 11 and rotatably drives the developing roller 18. Also, a thrust in the axial direction thereof is twisted and is directed toward the center portion of the developing roller 18. Also, a roller-shaped magnet (not shown in FIG. 18, to be described later) for having toner adhere on the peripheral surface of the developing roller 18 is contained in the developing roller 18.--

Please amend the paragraph starting at page 49, line 4 and ending at page 50, line 15, as follows.

--The developing bearing 63 is composed of a member made of a resin having an improved sliding property and has a flat shape with a thickness of around 2 to 5 mm. A cylindrical bearing portion 63a is formed at approximately the center of a plane portion 63g. The bearing portion 63a has an inside diameter of 8 to 15 mm. This bearing portion 63a is fitted around the second cylindrical portion 18c of the sleeve flange 18a to allow the developing roller 18 to rotatably slide. Also, on the plane portion 63g, dowels 63c, 63d, and 63e used for positioning on the developing frame 17 are formed substantially parallel to the bearing portion 63a. With this construction, positioning on the developing frame 17 is performed. Among these dowels, the dowels 63d and 63e that are coaxial with the dowel 63c and exist at the tip of the dowel 63c are used to position a magnetic seal. Also, on the plane portion 63g, there ~~is~~ are established screw holes 63b for fixing the developing bearing 63 to the developing frame 17

using small screws 64 or the like. The dowel 63c of the developing bearing 63 is fitted in an unillustrated fitting hole on one lengthwise end surface of the developing frame 17. Also, the dowel 63f is fitted in an unillustrated fitting long hole and the plane portion 63g of the developing bearing 63 contacts the aforementioned end surface of the developing frame 17. Then, the small screws 64 are put through the screw holes 63b established in the developing bearing 63 and are screwed into internal threads established in the aforementioned end surface of the developing frame 17. Thus, the developing bearing 63 is fixed to the developing frame 17. As a result, the developing blade 26 and the developing roller 18, which are fixed to the developing frame 17, are positioned with reliability and therefore stable images are outputted.--

Please amend the paragraph starting at page 53, line 3 and ending at page 54, line 23, as follows.

--As shown in FIGS. 20, 21, and 22, on the driving side, the developing frame 17 (developing device including the developing roller, the developing blade, and the like) is disposed so that a suspending hole 17d established in the tip of an arm portion 17c of the developing frame 17 is placed coaxially with a supporting hole ~~13e~~ 13x of the cleaning frame 13. Then, a parallel pin 66 is put through both of the suspending hole 17d and the supporting hole ~~13e~~ 13x, and thus functions as the rotational center of sliding. In this manner, the developing frame 17 is slidably supported so that the center of the developing roller is directed toward the center of the photosensitive drum. Under this condition, as shown in FIG. 22, the pressurizing force given by the developing roller 18 to the photosensitive drum 11 on the driving side is generated by three forces: a mesh force F1 of a gear portion 11a1 arranged on the flange 11a of

the photosensitive drum 11 and a gear portion 62b of the developing roller gear 62 (gear loads on a line of action passing through a mesh pitch point), a spring force F2 generated by an extension coil spring 36 hooked between the cleaning frame 13 and the developing device, and ~~a~~ the self weight F3 of the developing device passing through the center of gravity of the developing device. That is, in FIG. 22, all of the three forces are set so that a moment is generated in a counterclockwise direction about the parallel pin (sliding center) 66 and the developing roller 18 is pressurized against the photosensitive drum 11. During this setting, the position of the sliding center is set so that a small angle of around 5° is formed between the mesh force F1 and a line connecting a point, at which the photosensitive drum 11 contacts the spacer roller 18b, and the sliding center (66). This setting prevents a situation where the variation of the mesh force F1 due to variation of a torque significantly changes the D pressurizing. Also, the self weight F3 remains stable because there is obtained a construction in which a load due to developer is not placed on the developing device D, as described above. Also, as will be described later, the spring force F2 is also disposed and supported without losses, so that the D pressurizing D1 on the driving side takes a stable numerical value.--

Please amend the paragraph starting at page 54, line 24 and ending at page 56, line 24, as follows.

--That is, as shown in FIG. 20, the extension coil spring 36 provided as ~~an~~ a biasing member functions as an extension spring whose line diameter is around 0.5 to 1 mm. Both the end portions thereof are provided with hook portions 36a and 36b that function as attachment portions to the device. Also, the extension coil spring 36 is made of a material having spring

property, such as SUS, a music wire, or phosphor bronze. The hook portion 36a on one end of this spring member is hooked on a hole portion 26g formed in a sheet metal 26a of the developing blade 26, while the hook portion 36b on the other end is hooked on a shaft-shaped spring peg 13d provided for the cleaning frame 13. Here, one end portion of the sheet metal 26a protrudes from the end surface on one end of the developing frame 17. Also, the hole portion 26g of the developing blade 26 is disposed at a position protruding outward from the developing frame 17, has a width of around 2 to 5 mm, and has a length of around 4 to 8 mm. Also, the spring peg 13d of the cleaning frame 13 is disposed in the vicinity of the photosensitive drum 11, has a diameter of around 2 to 5 mm, and is integrated with the cleaning frame 13. Also, the positions of both the hole portion 26g and the spring peg 13d are set so that there is formed a substantially right angle between a line connecting the hole portion 26g of the blade sheet metal 26a to the spring peg 13d of the cleaning frame 13 and a line connecting the hole portion 26g to the sliding center (66). Also, the extension coil spring 36 is hooked on the developing blade 26. As a result, as to only the developing frame 17, it is not required to provide spring attachment portions, such as an axis, that protrude from the frame. This makes it possible to simplify the form of the lengthwise end surface of the developing frame 17. Also, it becomes easy to install attachment jigs and assembling easiness is improved when the aforementioned flexible seal 21 is attached to the developing frame 17. Also, the extension coil spring 36 is attached to the developing blade 26, which means that this spring is attached to a metal having a high elastic modulus. Therefore, situations that lead to losses of the D pressurizing (for instance, a situation where the spring peg portion is deformed due to a spring force) are prevented. Also, in the case where attachment portions, such as dowels, are directly provided for the developing frame 17, it

is required to increase a size in order to prevent losses of the D pressurizing due to deformation. However, no dowels are provided, so that there is achieved space saving.--

Please amend the paragraph starting at page 56, line 25 and ending at page 58, line 23, as follows.

--It should be noted here that there are cases where a detection means is provided to detect the residual quantity of developer. Various methods may be used to achieve the detection means. For instance, there may be used a method with which the residual quantity of developer is measured by measuring the electrostatic capacity between the developing roller and an antenna member disposed in the vicinity of the developing roller. In this case, it is required that the sheet plate (supporting member) of the developing blade that is a conductive member has the same potential as the developing roller. A voltage application path will be described. As shown in FIG. 7, a contact sheet metal 58 (developing contact portion) is supported by the end cover 20. Electricity is supplied to an outer contact portion 58a of this contact sheet metal 58 from an unillustrated contact portion (main body side developing contact portion) of the apparatus main body. A surface of the outer contact 58a which contacts the contact portion of the main body is exposed on the center undersurface of the end cover 20. Further, a contact portion 58b of the contact sheet metal 58 is electrically connected to a contact axis 20f supported by the end cover 20 by insert formation or the like. Then, the tip of the contact axis 20f is inserted into an inner radius portion 18g of the developing roller shown in FIG. 20 and is electrically connected to an unillustrated contact portion supported by the developing roller. With this construction, a voltage is applied to the developing roller 18. Also, at the same time, the contact sheet metal 58

includes a plate spring portion 58c and this plate spring portion 58c contacts the tip portion of a straight line portion 36c of the illustrated extension coil spring 36 functioning as an biasing member. As described above, this spring 36 is made of a metal and the hook portion 36a contacts the sheet metal 26a of the developing blade 26. This makes it possible to supply a high voltage and to obtain a potential that is the same as a potential of the developing roller 18. In more detail, ~~electric~~ electrical power supply is performed using a member on which the spring 36 pressurizing the developing roller 18 against the photosensitive drum 11 acts. This means that the same component is given two functions of developer regulation and ~~electric~~ electrical power supply. With this construction, the number of parts is reduced, so that it becomes possible to achieve cost reduction and space saving.--

Please amend the paragraph starting at page 59, line 10 and ending at line 19, as follows.

--Also, the pressurizing spring doubles as an ~~electric~~ electrical power supplying member to the developing blade sheet metal. This reduces the number of parts and therefore there are achieved cost reduction and space saving. Also, the developing blade sheet metal functions as a spring peg for the pressurizing spring, so that a situation is prevented in which the pressurizing spring is hooked on a frame made of a resin and spring peg portions are deformed.--

Please amend the paragraph starting at page 63, line 22 and ending at page 64, line 3, as follows.

--Then, as shown in FIG. 25, when the main body second coupling 104 is rotated through an unillustrated toner seal automatic unsealing mechanism in the direction E in which the developer seal 24 is unsealed, the ~~triangular rib~~ abutment portions 106e of the second coupling 106a, which are triangular rib abutment portions, are made to abut against the abutment portions 104a of the main body second coupling 104, thereby transmitting a driving force.--

Please amend the paragraph starting at page 64, line 4 and ending at line 13, as follows.

--At this time, there is also obtained a shape in which the diameter of the circular concave portion ~~106~~ 106d is changed so that a space g1 in the diameter direction between the perimeter 104d of the main body second coupling 104 and the concave portion 106d of the second coupling 106a becomes small. Therefore, the concave portion 106d includes flat surfaces 106g that each extend substantially parallel to a surface 106f from a point midway through a circular arc.--

Please amend the paragraph starting at page 67, line 13 and ending at line 25, as follows.

--Also, in the apparatus main body 27 whose printing speed is high, a setting is made by changing the driving speed of the driving source 102. Thus, there is obtained a construction in which the agitating speed is not changed and remains constant even if the speeds of the photosensitive drum 11 and the developing roller 18 are accelerated. Here, the driving source 102 may use the same driving motor as the driving source 101 through a variable speed device.

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In this case, it is possible to set optimal agitating motion by changing a speed in accordance with specifications of the apparatus main body 27.--

Please amend the paragraph starting at page 68, line 1 and ending at line 10, as follows.

--Gear flanges 105 and 107 (gear flange 105 also being a drum flange) that are obtained by integrally forming gears 105b and 107b with flanges are respectively fixed to one ~~ends~~ end of the photosensitive drum 11 and the developing roller 18, respectively, that are directly related to the development of electrostatic latent images. Also, bearing flanges 119 and 120 are fixed to the other ends thereof. In this manner, units are formed from these components. The gear 105b meshes with the sleeve gear 107b.--

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Please amend the paragraph starting at page 69, line 3 and ending at line 22, as follows.

--To drive the agitating system, gears are coupled so that a driving force is transmitted to the agitating members 113 and 114 as follows. First, the driving force is transmitted to an idler input gear 108 through an idler gear 126 that meshes with an input gear 106b. Then, the driving force is transmitted to an idler gear 129 fixed to a shaft 108a fixed to the idler input gear 108, and is further transmitted to an idler gear 128 that meshes with the idler gear 129. Finally, the driving force is transmitted to agitating input gears 109 and 127 that mesh with a small gear 128a of the idler gear 128 that is a two-stepped gear. Note that there is no problem even if the axis of the input gear 106b and the axis of the agitating member 114 do not exist on a straight

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line, so that it is possible to select the position of the input gear 106b to be in a wide area. Here, each gear in the process cartridge 15 is rotatably supported by the frame of the process cartridge 15.--

Please amend the paragraph starting at page 69, line 23 and ending at page 70, line 6, as follows.

--Also, the shaft 108a of the idler input gear 108 is integrated with a driving transmission rod 122 or is coupled thereto on a straight line. The driving transmission rod 122 is coupled to an idler input gear 124 on the lengthwise opposite side and transmits the driving force to the agitating member 123 through an agitating gear 125 that meshes with an idler gear 110a. Here, each of the driving transmission rod 122 and the agitating members 113, 114, and 123 are rotatably supported by the developer frame 16.--

Please amend the paragraph starting at page 70, line 7 and ending at line 13, as follows.

--Consequently, when the input gear 106b is rotated, the agitating members 114, 113, and 123 and the transmission rod 122 rotate in an ~~interlock~~ interlocking manner because the journal portion of each of these components is rotatably supported by a bearing portion provided for the developer frame 16.--

Please amend the paragraph starting at page 70, line 14 and ending at page 71, line 15, as follows.

--As to the coupling 103, as shown in FIG. 24, the convex portion 105a1 that is a twisted triangle prism on the drum flange 105 side is engaged with the twisted concave portion 103a on the apparatus main body 27 side during driving. Therefore, the convex portion 105a1 and the concave portion 103a pull each other and are aligned, which determines the positions of the apparatus main body 27 and the process cartridge 15. During this operation, the convex portion of the coupling 104 is engaged with the concave portion of the input coupling 106a. However, a fitting space is maintained to allow eccentricity to a degree, so that there is no effect on the positioning of the first coupling 105a on the drum flange side (see FIGS. 25 and 26). Further, as a detent means of the process cartridge 15, a protrusion (to be described later) of the second guide portion 20g of the front end cover 20 is positioned in the apparatus main body 27. That is, there is obtained a rough coupling construction described below. On the driving input side on which there are performed the development and formation of latent images that affect images, positioning in the apparatus main body 27 is performed by an aligning action of the couplings. However, on the driving input side of the agitating system, only the transmission of a driving force is performed.--

Please amend the paragraph starting at page 71, line 16 and ending at page 72, line 12, as follows.

--Further, in the cleaning frame 13 that also functions as the removed toner reservoir 5, there is contained an impeller-shaped removed toner sending member 115 that transports removed toner removed from the photosensitive drum 11. This removed toner sending member 115 is rotatably pivoted by bearing portions provided for the cleaning frame 13. A removed

toner sending portion input gear 112 is fixed to one end of the removed toner sending member 115. This removed toner sending portion input gear 112 meshes with the idler output gear 124 through idler gears 111c, 111b, 111a, 125, and 110a. As to the transmission rod 122, the idler input gear 108 is fixed to one end thereof and the idler output gear 124 is fixed to the non-driving side that is the opposite side. The axis of each of the idler gears 111a, 111b, and 111c is rotatably supported by bearing portions of the rear end cover 19. Here, when the driving transmission rod 122 rotates, the removed toner sending member 115 also rotates in an ~~interlock~~ interlocking manner. Note that each bearing portion supporting the idler gears 111a, 111b, and 111c is a fixation axis that is integrally formed with the rear end cover 19.--

Please amend the paragraph starting at page 72, line 13 and ending at line 16, as follows.

--Also, the idler gear 111c may be a two-stepped step gear. In this case, a large gear meshes with the idler gear 111b and a small gear meshes with the removed toner sending portion input gear 112.--

Please amend the paragraph starting at page 72, line 24 and ending at page 73, line 5, as follows.

--Also, the removed toner sending member 115 may be driven by a transmission construction on an opposite side to the input portion of the agitating member 113 or 114 of the toner container 16. Further, the removed toner sending member 115 may be driven by receiving

inputs from any one of the input ~~gears~~ gear 106b, and input agitating gears 109~~;~~ and 127, and idler ~~gears~~ input gear 108 and idler gear 128 of the agitating portion through a gear train.--

Please amend the paragraph starting at page 73, line 7 and ending at page 74, line 1, as follows.

--FIGS. 28 and 29 are each a schematic diagram of a gear train disposed on the periphery of the photosensitive drum. FIG. 28 is a side view taken by detaching a side cover, while FIG. 29 is a side view showing the side cover using virtual lines. In the cleaning frame 13, there is provided the removed toner sending member 115 that transports removed and collected toner toward the back of the removed toner reservoir 5. There may be cases where the speed of the removed toner sending member 115 needs to be significantly decelerated in the case where the removed toner sending member 115 receives a driving force from the photosensitive drum 11. However, if the removed toner sending member 115 receives a driving force from the toner agitating member 114 in the developer frame 16, ~~the~~ a significant deceleration becomes unnecessary and it becomes easy to obtain an appropriate rotational speed. In this case, the gears 111b and 111c are disposed in the vicinity of the photosensitive drum 11 outside of the developer frame 16 and the developing frame 17 (see FIG. 28).--

Please amend the paragraph starting at page 74, line 14 and ending at line 26, as follows.

--The construction of the cooling air trunk will further be described with reference to FIGS. 30, 31, and 32. FIG. 31 is a perspective view of the gear 111c. Here, the gear 111b is the

same as the gear 111c except that the direction, in which teeth are twisted, and the direction, in which a the air trunk is twisted, are opposite to those of the gear 111c. Therefore, the following description takes the gear 111c as an example. FIG. 32 is a cross sectional view taken along the line XXXII-XXXII in FIG. 31, while FIG. 30 is a cross sectional view taken along the line XXX-XXX in FIG. 31.--

Please amend the paragraph starting at page 74, line 27 and ending at page 75, line 24, as follows.

--The gear 111c is a helical gear. A disk-shaped hub 111c3 connecting a rim 111c2 including a teeth portion to a boss 111c1 is provided with slits 34a that pass through the hub 111c3. When the slits 34a are provided, the circumference of a circle is equally divided. A surface of the hub 111c3 is separated from an inside surface 19i of the rear end cover 19. With this construction, the air trunk 19f provided for the rear end cover 19, through which air enters into and exits from the rear end cover 19, ~~is communicated~~ communicates with the slits 34a through a space 46. A center hole of the boss 111c1 is rotatably supported by an axial portion 19G provided so as to protrude toward the inside of the rear end cover 19 in the lengthwise direction. An unillustrated locating snap ring is fitted around the axial portion 19G, thereby preventing ~~moves~~ movement in the axial direction. As to the rim 111c2, one side surface 111c4 is disposed in the vicinity of the inside face 19i of the rear end cover 19. Both of the side surfaces 19i and 111c4 ~~reduces~~ reduce the passage of air as soon as possible. To do so, both of the side surfaces 19i and 111c4 may get into each other in a labyrinth manner.--

Please amend the paragraph starting at page 75, line 27 and ending at page 76, line 8, as follows.

--As shown in FIG. 32, screw-shaped blades 34g exist between the slits 34a that are adjacent to each other. It is preferable that the adjacent slits 34a are formed like an axial fan so as to aerodynamically improve ~~an~~ the air blast efficiency, although it is enough that the blades are provided in a simple slanting manner because the rotational speed of the gear 111c is slow. These slits 34a form an impeller inside of the rim 111c2.--

Please amend the paragraph starting at page 79, line 6 and ending at line 20, as follows.

--Meanwhile, one side surface of the magnet 23 is rotatably supported by the inside diameter portion of the developing roller 18 and the other side surface thereof is unrotatably supported by the engagement member 17e including a developing bearing function, thereby maintaining a predetermined gap between the magnet 23 and the developing roller 18. Note that the ~~electric~~ electrical energy supply to the developing roller 18 is performed via an unillustrated electric contact provided within the developing roller 18. Also, on the developing roller 18, there is provided the spacer roller 18b for maintaining a constant space between the developing roller 18 and the photosensitive drum 11 (see FIG. 37).--

Please amend the paragraph starting at page 80, line 20 and ending at page 81, line 16, as follows.

--As shown in FIG. 36, the stated sleeve flange 18j is a stepped hollow cylindrical member that is made of a metallic material, such as aluminum or a stainless steel, and is press-fitted and fixed to an end portion of the developing roller 18. The sleeve flange 18j ~~constructs~~ comprises a press-fit portion 18j1 that is press-fitted in an end portion of the developing roller 18. By press-fitting this press-fit portion 18j1 in the developing roller 18, the sleeve flange 18j is fixed to the developing roller 18. Also, there are formed, outside of the sleeve flange 18j in the axial direction of the press-fit portion 18j1, a rib portion 18j3 having ~~an~~ approximately the same diameter as the developing roller 18 and a small-diameter portion 18j2 that is coaxial with the fit-press portion 18j1 and has a smaller outside diameter. The spacer roller 18b for regulating an opposing distance between the developing roller 18 and the photosensitive drum 11 is put in this flange small-diameter portion 18j2. A journal 18j4 is formed having a smaller diameter than that of the small-diameter position 18j2.--

Please amend the paragraph starting at page 84, line 25 and ending at page 85, line 8, as follows.

--Further, at the back of the hole 17e3 of the engagement member 17e, the second hole 17e5 that is a D-cut shaped positioning hole is formed coaxially with the protrusion portion 17e2. The D-cut portion 23c1 of the magnet 23 is fitted in the second hole 17e5, so that positions of magnet 23 and roller 18 are determined. As a result, the positions of the magnet 23 and the developing roller 18 are determined with high precision only by the engagement member 17e, which means that precision is guaranteed without difficulty.--

Please amend the paragraph starting at page 89, line 27 and ending at page 90, line 19, as follows.

--As shown in FIG. 42, as can be seen through the opening 100a, a main body fixation guide 72, the first guide concave portion 73a, the second concave portion 73b, and a flat guide portion 73c are fixed in the apparatus main body 27 in a direction from the front to the back. Here, the main body fixation guide 72, the first guide concave portion 73a and the second guide concave portion 73b each have a guide rail shape, and the components numbered 73a to 73c are hereinafter collectively referred to as the "guide 73". Also, the guide 72 is provided at the upper-left corner of the opening 100a and the guide 73 is provided at the lower-right corner of the opening 100a. This guide 72 is a line groove and extends substantially parallel to the photosensitive drum 11. This line groove is a raceway surface that has a circular section opening upward. The first and second guide concave portions 73a and 73b extend parallel to the main body fixation guide 72.--

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Please amend the paragraph starting at page 90, line 20 and ending at page 91, line 10, as follows.

--As shown in FIG. 43A, there is no back portion of the guide 72, thereby providing a dropping portion 72a. The guide 73 is disposed so that it extends from the opening 100a backward, and reaches a hole shaped member 53 provided on a cartridge mounting portion back plate 52 existing at a backmost position viewed from the opening portion 100a. The hole shaped member 53 includes a substantially cylindrical hole 53a. This hole 53a is substantially parallel to the photosensitive drum 11 and exists on a straight line of the guide 73 view when viewed

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from above. Note that, the center of the hole 53a of the hole shaped member 53 exists at a position that is higher than that of the circular arc of the circular raceway of the guide rail 73. This will be described in more detail later in conjunction with the description of the operations of the device.--

Please amend the paragraph starting at page 92, line 7 and ending at page 93, line 22, as follows.

--The bottom side of the cartridge mounting portion 71 is a transport path for a sheet S that is a recording medium. On the both ends of the transfer roller 9 located in this transport path, a pair of main body positioning concave portions 75 (75a, 75b) is provided for a pair of stands provided to protrude upward. The shaft 22a1 provided for the bearing member 22a supporting the photosensitive drum 11 of the process cartridge 15 is fitted in the positioning concave portion 75a (on the front side in the direction in which the process cartridge is to be mounted). The shaft 22a1 exists on the axial line of the photosensitive drum 11, thereby precisely positioning one end of the photosensitive drum 11 on the non-driving side with respect to the apparatus main body 27. The bearing member 22b that concentrically surrounds the first coupling 105a on the process cartridge side is fitted in the positioning concave portion 75b. This bearing member 22b is a circular member and functions as a positioning portion. Under this condition where the bearing member 22b is fitted in the positioning concave portion 75b, the center of the bearing member 22b, which is to say the center of the photosensitive drum 11, exists on substantially the same line as the center of the main body first coupling 103. Here, the difference between the centers of the main body first coupling 103 and the bearing member 22b

is within a range of from 100 μm to 1 mm. Therefore, when the main body first coupling 103 rotates, the first coupling 105a on the process cartridge side is aligned. Then, the photosensitive drum 11 rotates about a rotational center that is the same as that of the main body first coupling 103. Accordingly, while the photosensitive drum 11 is rotating, the bearing member 22b that is a positioning portion is not securely positioned on the positioning concave portion 75b existing backward but is placed in a floating state. Next, a cartridge mounting ~~mean~~ means on the process cartridge side will be described.--

Please amend the paragraph starting at page 93, line 23 and ending at page 94, line 16, as follows.

--As shown in FIGS. 5 and 6A, when viewed in a mounting direction, the first guide portion 15a to be guided by the main body fixation guide 72 is provided at a back upper-left corner portion of the process cartridge 15. This first guide portion 15a includes a tip that is directed downward in a slanting manner. This tip has a circular section and has a shape that is substantially parallel to the photosensitive drum 11. The tip of the first guide portion 15a is engaged with the raceway surface of the line groove of the guide 72 having a circular section. This first guide portion 15a exists only at the back in the process cartridge mounting direction. This first guide portion 15a includes a horizontal protrusion portion 15a-1 that is substantially parallel to the upper surface of the cartridge frame portion and a lower protrusion portion 15a-2 that protrudes downward from the horizontal protrusion portion 15a-1. The lower end of the lower protrusion portion 15a-2 is guided by the main body fixation guide 72.--

Please amend the paragraph starting at page 95, line 11 and ending at page 96, line 25, as follows.

--As shown in FIG. 5, on the back upper-left corner in a direction in which the process cartridge 15 is mounted to the apparatus main body 27, an engagement member 20n that has a round pin shape and protrudes in the mounting direction is integrally provided for the front end cover 20. The position of this engagement member 20n is slightly higher than the position of the base portion of the aforementioned first guide portion 15a. The engagement member 20n protrudes upward from the upper surface of the cartridge frame portion. The engagement member 20n also protrudes from the tip surface of the cartridge frame portion in a direction in which the process cartridge 15 ~~is entered into~~ enters the apparatus main body 27. Here, the stated tip surface is a surface that will be positioned at a tip when the process cartridge 15 is entered into the apparatus main body 27. Here, the stated upper surface is a surface facing upward when the process cartridge 15 is entered into the apparatus main body 27. Note that, the first guide portion 15a is connected to both of a portion integrally formed with the front end cover 20 and a portion integrated with the cleaning frame 13. Also, there is provided the second guide portion 20g on the back lower-right corner when viewed in the direction in which the process cartridge 15 is mounted in the apparatus main body 27. As shown in FIG. 6B, an inclined plane 20g3 is provided on the lower side of the protrusion 20g1 of this second guide portion 20g. Also, the third guide portion 19g, which includes the center of the circular arc directed downward on a line that passes through the center of the protrusion 20g1 of the second guide portion 20g in parallel to the photosensitive drum 11, is provided on the front lower-right

side, when viewed in the direction in which the process cartridge 15 is mounted in the apparatus main body 27. The third guide portion 19g is integrally formed with the rear end cover 19.--

Please amend the paragraph starting at page 100, line 12 and ending at page 101, line 9, as follows.

--The main body lever 77 is held by an unillustrated notch when the lever is at a position indicated by a solid line in FIG. 40. When the main body lever 77 is rotated in the direction indicated by the arrow B in this drawing, the axis 74 is also rotated and the up-and-down lever 78 is rotated in a direction for moving the cam groove 78a downward. As a result, as shown in FIG. 46, the process cartridge 15 moves downward by rotating about the protrusion ~~20g~~ 20g1 being fitted in the hole 53a of the hole shaped portion 53 and the third guide portion 19g being supported by the second guide concave portion 73b. During this, the process cartridge 15 is supported by the cam groove 78a on which the engagement member 20n is mounted. Then, the bearing members 22a and 22b that are positioning portions are respectively fitted in the positioning concave portions 75a and 75b of the apparatus main body 27. Then, when the main body lever 77 is rotated to a position at which it is held horizontally, the mounting of the process cartridge 15 to the apparatus main body 27 (see FIG. 41) is finished. Note that the main body lever 77 is separated from the engagement member 20n, further moves downward, and stops.--

Please amend the paragraph starting at page 105, line 19 and ending at page 108, line 27, as follows.

--When the main body lever 77 is rotated from the condition shown in FIG. 41 in the direction indicated by the arrow C in this drawing, the axis 74 is rotated in the same direction and the up-and-down lever 78 moves upward. Then, the engagement member 20n, which ~~exist~~ exists at the back upper-left corner when viewed in the insertion direction of the process cartridge 15, is lifted up by the cam groove 78a. Consequently, the protrusion 20g1, which is placed at the back lower-right corner when viewed in the insertion direction of the process cartridge 15, rotates within the hole-shaped member 53 of the apparatus main body 27, the left portion of the process cartridge 15 when viewed in the insertion direction is lifted up, the shaft 22a1 is moved slightly upward to be separated from the positioning concave portion 75a, the bearing member 22b is moved slightly upward to be separated from the positioning concave portion 75b, and the third guide portion 19g, which is positioned at the front lower-right corner when viewed in the insertion direction of the process cartridge 15, moves downward and is supported by the second guide concave portion 73b. As a result, the process cartridge 15 is placed in a condition where the protrusion 20g1 is supported by the hole-shaped portion 53 and the third guide portion 19g is supported by the third guide concave portion 73b. At this time, the engagement member 20n moves upward and the process cartridge 15 is placed in the state shown in FIG. 40 by taking the protrusion 20g1 and the lower circular arc portion of the third guide portion 19g as a rotational center. During this movement, the first guide portion 15a at the back upper-left corner of the process cartridge 15 passes through the dropping portion 72a and is thus placed at a position at which this first guide portion 15a is able to enter into the main body fixation guide 72 when viewed from the front of the apparatus main body 27. Here, when the operator grasps the second handle 29 and pulls it frontward in the state shown in FIG. 40, the

engagement member 20n at the back upper-left corner of the process cartridge 15 lightly engages with the cam groove 78a that is a receiving portion for this member and the protrusion 20g1 at the back lower-right corner in the insertion direction of the process cartridge 15 also moves in a direction in which the protrusion 20g1 moves apart from the hole-shaped portion 53. Following this, since the first guide portion 15a at the back upper-left corner in the insertion direction of the process cartridge 15 has moved to the dropping portion 72a, when the process cartridge 15 is pulled frontward, the first guide portion 15a becomes mounted on the main body fixation guide 72 and thereafter the pin-like engagement member 20n at the back upper-left corner in the insertion direction of the process cartridge 15 is detached from the cam groove 78a. Also, at almost the same time, the protrusion 20g1 at the back lower-right corner in the insertion direction of the process cartridge 15 is detached from the hole shaped portion 53 and the right side of this cartridge when viewed from the front of the apparatus main body 27 is placed in a condition where the second and third guide portions ~~19g and~~ 20g and 19g, respectively, become mounted on the ~~first and~~ second ~~guides 73a~~ and first guide concave portions 73b and 73a, respectively. When the process cartridge 15 is pulled out, the first guide portion 15a slides on the main body fixation guide 72, the second and third guide portions ~~19g and~~ 20g and 19g, respectively, slide on the guide 73, and the third guide portion 19g first passes through the opening 100a to the outside and is detached from the guide 73. Following this, when the operator pulls the process cartridge 15 frontward while supporting the process cartridge 15 using the second handle 29, the first guide portion 15a moves to the front end of the main body fixation guide 72 and the second guide portion 20g moves to the front end of the main body fixation guide 73b. Here, when the operator further pulls the process cartridge 15 toward the outside of

the opening 100a by grasping the first handle 30, the first guide portion 15a is detached frontward from the front end of the main body fixation guide 72 and the second guide portion 20g is detached frontward from the front end of the second guide 73b.--

Please amend the paragraph starting at page 111, line 2 and ending at line 22, as follows.

--Also, the first and second guide concave portions supporting the process cartridge from the lower side are provided on the lower side of an end portion of the developer frame so that an enough distance is maintained between these guide concave portions and the photosensitive drum. As a result, the center of the photosensitive drum traces a circular arc path that extends in a nearly vertical direction. Also, the up-and-down lever is provided with a cam groove and the pin-like engagement member of the process cartridge is inserted into this cam groove, which simplifies the construction of the up-and-down means of the process cartridge. Further, the weight of the process cartridge placed on the up-and-down means is directly applied to an operation lever (main body lever 77) not through a link mechanism. Therefore, the operation feeling communicated to the user is acute and it becomes possible for the operator to move upward and downward the process cartridge at an appropriate speed.--